DEPARTMENT OF THE ARMY
Wilmington District, Corps of Engineers
Post Office Box 1890
Wilmington, North Carolina 28402-1890

Action ID No. 199910581

May 30, 2002

PUBLIC NOTICE

The District Engineer has received a prospectus describing the establishment of a wetland compensatory mitigation bank for Federal and State permits as described below:

Bank Sponsor
Restoration Systems, LLC
1101 Haynes Street, Suite 203
Raleigh, North Carolina 27604
(919) 755-9490

This public notice does not imply, on the parts of the Corps of Engineers or other agencies, either favorable or unfavorable opinion of the work to be performed, but it issued to solicit comments regarding the factors on which final decisions will be based.

WATERWAYS AND LOCATION OF THE PROPOSED WORK: The Bear Creek/Mill Branch Mitigation Bank is located north of U.S. Highway 70 and east of Promise Land Road, adjacent to Mill Branch and Bear Creek, west of LaGrange, in Lenoir County, North Carolina. Other preservation properties associated with this bank are located adjacent to the Neuse River in Lenoir and Craven Counties (see attached maps). Total size of the bank equals approximately 448 acres.

PROPOSED WORK AND PURPOSE: The primary focus of the bank is to restore and enhance wetlands and riparian habitats located adjacent to Bear Creek and Mill Branch, and to preserve high-quality forested wetlands adjacent to the Neuse River. The bank sponsor seeks to establish self-sustaining, functioning aquatic systems to replace the functions and acreage of wetlands anticipated to be adversely affected by permitted activities.

GEOGRAPHIC SERVICE AREA: The Geographic Service Area for this bank is the Neuse River Basin Hydrologic Unit 03020202 in North Carolina.

This mitigation bank may be considered one of a number of practicable alternatives available to applicants to compensate for unavoidable wetland impacts associated with permits issued under the authority of Sections 404 and 401 of the Clean Water Act for projects located within the prescribed geographic service area.

Oversight of this wetland compensatory mitigation bank will be by a group of Federal and State agency representatives collectively referred to as the Mitigation Bank Review Team (MBRT). The MBRT shall be chaired by the Wilmington District, U.S. Army Corps of Engineers and is comprised of representatives from the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, National Marine Fisheries Service, N.C. Division of Water Quality and the N.C. Wildlife Resources Commission.

The actual approval of the use of this mitigation bank for a specific project is the decision of the Corps of Engineers pursuant to Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. The Corps provides no guarantee that any particular individual or general permit will be granted authorization to use this wetland compensatory mitigation bank to compensate for unavoidable wetland impacts associated with a proposed permit, even though mitigation from this bank may be available.

AUTHORITY: A Public Notice regarding proposed mitigation banks is recommended pursuant to Federal Guidance for the Establishment, Use and Operation of Mitigation Banks (60 Federal Register Number 228).

FEDERAL EVALUATION OF PROPOSAL: The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate this proposed mitigation bank. Any comments received will be considered by the Corps in evaluating this proposal. Comments are used to assess impacts on endangered species, historic properties, conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards and flood plain values (in accordance with Executive Order 11988), land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

Preliminary review indicates that: 1) An environmental impact statement will not be required; 2) No species of fish, wildlife, or plant (or their critical habitat) listed as endangered or threatened under the Endangered Species Act of 1973 (PL 93-205) will be affected; and 3) No cultural or historic resources considered eligible or potentially eligible for listing on the National Register of Historic Places will be affected. Additional information may change any of these preliminary findings.

Written comments pertinent to the proposed work, as outlined above, will be received in this office, Attention: David Lekson, Washington Regulatory Field Office, Post Office 1000, Washington, North Carolina 27889-1000, until 4:15 p.m., June 14, 2002, or telephone (252) 975-1616, extension 22.

BEAR CREEK-MILL BRANCH MITIGATION BANK

Bank Sponsor:
Restoration Systems, LLC
1101 Haynes Street, Suite 203
Raleigh, North Carolina 27604
919-755-9490, 919-755-9492 (fax)

Type of Bank:
Riverine wetland mitigation

Current Interest in Property Held:
Restoration Systems (the Sponsor) is the record owner of, or has entered into contracts to purchase, certain parcels of land containing approximately 448 acres located in Lenoir and Craven Counties, North Carolina.

Financial Assurances:
The Sponsor has provided a construction performance bond to the N.C. Department of Transportation (NCDOT). NCDOT represents the State agency that holds the construction performance bond. The construction bond will be held by NCDOT until as-built plans are submitted and approved by the MBRT and NCDOT.

The Sponsor has provided a monitoring, maintenance, and remediation bond to NCDOT. The bond ensures that the Bank will be monitored, maintained, and, if necessary, remediated by the Sponsor as stated in the Mitigation Plan for 5 years or until success criteria are achieved. The Sponsor will renew or extend the bond as necessary to ensure that all monitoring, maintenance, and remediation activities required by the Mitigation Plan are performed.

Reasonably Expected Development Around the Site:
Land use in the area is rural agricultural. It is anticipated that land uses would remain the same in the immediate future if the bank was not implemented. However, due to continuing urban encroachment attributed to the nearby Kinston and Goldsboro metropolitan areas, lands surrounding the Site, including associated watersheds, are expected to undergo land use changes in the next several decades to more urban, residential, infrastructural, and commercial conditions.

Relationship of the Bank to State Designated Priority Watershed:
The Bank is located in the Neuse River Basin Hydrologic Unit 03020202 and Priority Sub basin 030105.

Location and size of the Proposed Bank:
The Bank is comprised of 448 acres of riverine floodplains located along Bear Creek (fourth order stream) and the Neuse River (fifth order stream) in Lenoir and Craven Counties, North Carolina. The Bank includes a 145-acre Core Wetland Restoration Area situated on the farmed floodplains of Bear Creek and Mill Branch immediately north of US 70 and east of Promise Land Road (SR 1223) (see Figure 1). The Bank also includes preservation of 303 acres of Regional Wetland Preservation Areas at five sites within the wetland and wildlife corridor designed to augment regional functions associated with the Core Wetland Restoration Area.

Pre-bank Conditions:
As previously stated, the Bank is composed of two components: a 145-acre Core Wetland Restoration Area and 303 acres of Regional Watershed Preservation Areas at five sites.

Pre-bank conditions on the 145-acre Core Wetland Restoration area included 70 acres of active crop land and 75 acres of remnant forest. The Core Wetland Restoration Area was subdivided into four primary physiographic units for descriptive and restoration planning purposes: 1) river levee; 2) primary floodplain; 3) secondary floodplain (backwater slough), and 4) groundwater (upland) slopes.

Under pre-bank conditions, the river floodplain along Bear Creek was ditched, leveled, and drained to support agricultural and silvicultural activities. Streams and the river have been dredged, straightened, and levees constructed to further impede surface water impacts to alternative land uses. Based on surface water models, river flooding onto the former floodplain has been effectively reduced to a 100-year return interval due to constructed levees.

The Regional Watershed Preservation Areas were selected based upon a regional study of wetland tracts situated within the regional wildlife corridor extending along Bear Creek and the Neuse River. These tracts chosen for incorporation into the mitigation plan were targeted to include relatively undisturbed ecosystems that are similar to the ecosystems that wetland restoration activities are attempting to emulate. Wetland preservation is intended to enlarge contiguous forested habitat around the Core Wetland Restoration Area and to ensure connectivity and stability within the regional wildlife corridor below the US 70 divided highway.

Description of the Mitigation Plan:
Restoration of the Core Wetland Restoration Area was accomplished in the fall of 2001 in compliance with Nationwide Permit #27 (Action ID # 199910581). Site alterations to restore groundwater, surface flow dynamics, and wetland function included: 1) ditch backfilling; 2) ditch outlet plugs; 3) river levee removal; 4) embankment construction; 5) Mill Branch channel repair; 6) wetland surface scarification; 7) seasonal pool construction; 8) woody debris deposition; and 9) tree planting. The alterations will serve to: 1) establish a backwater cypress-tupelo swamp; 2) provide a perennial source for groundwater recharge through restored bottomland hardwood forest; 3) allow diversion of Mill Branch back into the historic stream channel; and 4) facilitate nutrient reduction goals in the Neuse River basin. The wetland design has been prepared to mimic riverine wetland attributes measured in regional reference wetlands (carbon copy method for wetland restoration). More than 50,000 characteristic trees have been planted within the restored wetland systems.

Mill Branch has been diverted from inter-field ditches into exiting forested areas. In the forested area, the stream has been allowed to re-develop primarily through passive processes. Braiding, ponding, and anastomosed conditions are occurring, mimicking reference streams in the region. The outlet for Mill Branch has been established approximately 3000 feet down-valley from the existing outfall, providing approximately 1710 feet in additional valley length relative to existing, straightened conditions in an effort to allow for the restoration and maintenance of in-stream aquatic habitat relative to existing conditions.

The Sponsor intends to immediately transfer the conservation easements for the Core Wetland Restoration Area and the Regional Wetland Preservation Areas to the North Carolina Coastal Land Trust upon completion of the MBI process.

Proposed Wetland Types and Target Functions:
Under pre-bank conditions, nitrogen loading into the Neuse River from the Bear Creek and Mill Branch watersheds was projected to increase substantially due to land uses in the watershed. River dredging and levee construction throughout the Bear Creek watershed has most likely exacerbated the water quality problems. Nutrient recycling functions associated with riverine wetlands and floodplains are expected to be diminished or negated throughout the region. Therefore, wetland restoration plans were designed

specifically to maximize nutrient cycling functions at this Site. This effort included: 1) restoration of over bank flooding from the river as described above; 2) maximizing the amount of groundwater recharge across the floodplain from auxiliary watersheds; 3) establishment of backwater sloughs, cypress-tupelo swamps, and bottomland hardwood forests in flow pathways; and 4) diversion of treated stream flows back into historic channels located approximately 3000 feet down-valley from the existing ditch outlets. Based on preliminary studies, this wetland restoration project exhibits potential to provide up to a five percent reduction in nitrogen loads for the 54-square mile Bear Creek region, or an 80 percent reduction in nitrogen loads for the three-square mile Mill Branch watershed.

Restoration plans will re-introduce surface water flood hydrodynamics from a 54-square mile watershed. The plan included establishment of an array of riverine communities, including levee forest, bottomland hardwood forests, riverine swamp forests, and backwater cypress-gum swamps. Therefore, riverine hydrodynamic and biogeochemical functions will be restored, including pollutant removal, organic carbon export, sediment retention, nutrient cycling, flood storage, and energy dissipation.

Biological functions associated with the riverine system will also be restored including in-stream aquatic habitat, structural floodplain habitat, and interspersion and connectivity between the restored stream, floodplain, and adjacent uplands.

Approximately 303 acres of wetland preservation will be incorporated into the Bear Creek-Neuse River corridor in support of wetland restoration activities at the Site. The preservation areas will promote regional connectivity to the wetland restoration area for wildlife movement and use. The preservation areas will also assist in ensuring that water quality benefits realized by wetland restoration are not negated by adjacent changes in land use on river floodplains.

Proposed Construction Schedule:
Restoration of the Core Wetland Restoration Area was accomplished in the fall of 2001 in compliance with Nationwide Permit #27 (Action ID # 199910581). Monitoring is currently ongoing. Preservation areas have been acquired or placed under easement.

Proposed Wetland Credit Composition:
The mitigation credit composition of this Bank is shown in Table 1:

Table 1. Mitigation Credit
Bear Creek-Mill Branch Mitigation Site

Mitigation Design Unit	Area (acres)	Mitigation Credit Ratio	Replacement Credits (acre credits)
Riverine Wetland Restoration	88	1:1	88
Riverine Wetland Enhancement	34	2:1	17
Upland Buffer Restoration	23	----	----
Riverine Wetland Preservation	303	5:1	60.6
TOTAL	448		165.6

Credit Release Schedule:
Fifteen percent (15%) of the Bank's total 165.6 credits will be available for sale immediately upon completion of: 1) execution of this MBI; 2) approval of the final mitigation plan; 3) delivery of the financial assurances described in the MBI; and 4) recordation of the preservation mechanism described in the MBI, as well as a title opinion covering the property acceptable to the Corps.

Additionally, the Sponsor must complete the initial physical and biological improvements to the Bank Property pursuant to the Mitigation Plan no later than the first full growing season following initial debiting of the Bank. This requirement has been met.

Additional restoration mitigation credits will be available for sale by the Sponsor on the following schedule:

- 10% after first year, if interim success measures are met (total 25%);
- 10% after second year; if interim success measures are met (total 35%);
- 10% after third year; if interim success measures are met (total 45%);
- 15% after fourth year; if interim success measures are met (total 60%);
- 15% after fifth year; if Success Criteria are met (total 75%); and
- 25% after fifth year, if the Bank meets the overall objectives and Success Criteria set forth in mitigation plan (total 100%).

Crediting/Debiting Methodology:
The Sponsor will develop accounting procedures acceptable to the MBRT for maintaining accurate records of debits made from the Bank. Procedures will include the generation of a report by the Sponsor showing credits used at the time they are debited from the Bank, which the Sponsor shall provide within 30 days of the debit to each member of the MBRT. In addition, the Sponsor will prepare an annual report, on each anniversary of the date of execution of this agreement, showing all credits used, and the balance of credits remaining, to each member of the MBRT, until such time as all of the credits have been utilized, or this agreement is otherwise terminated. All reports will identify credits debited and remaining by type of credit (e.g. riverine wetland), and will include for each reported debit the Corps Action ID number for the permit for which the credits were utilized.

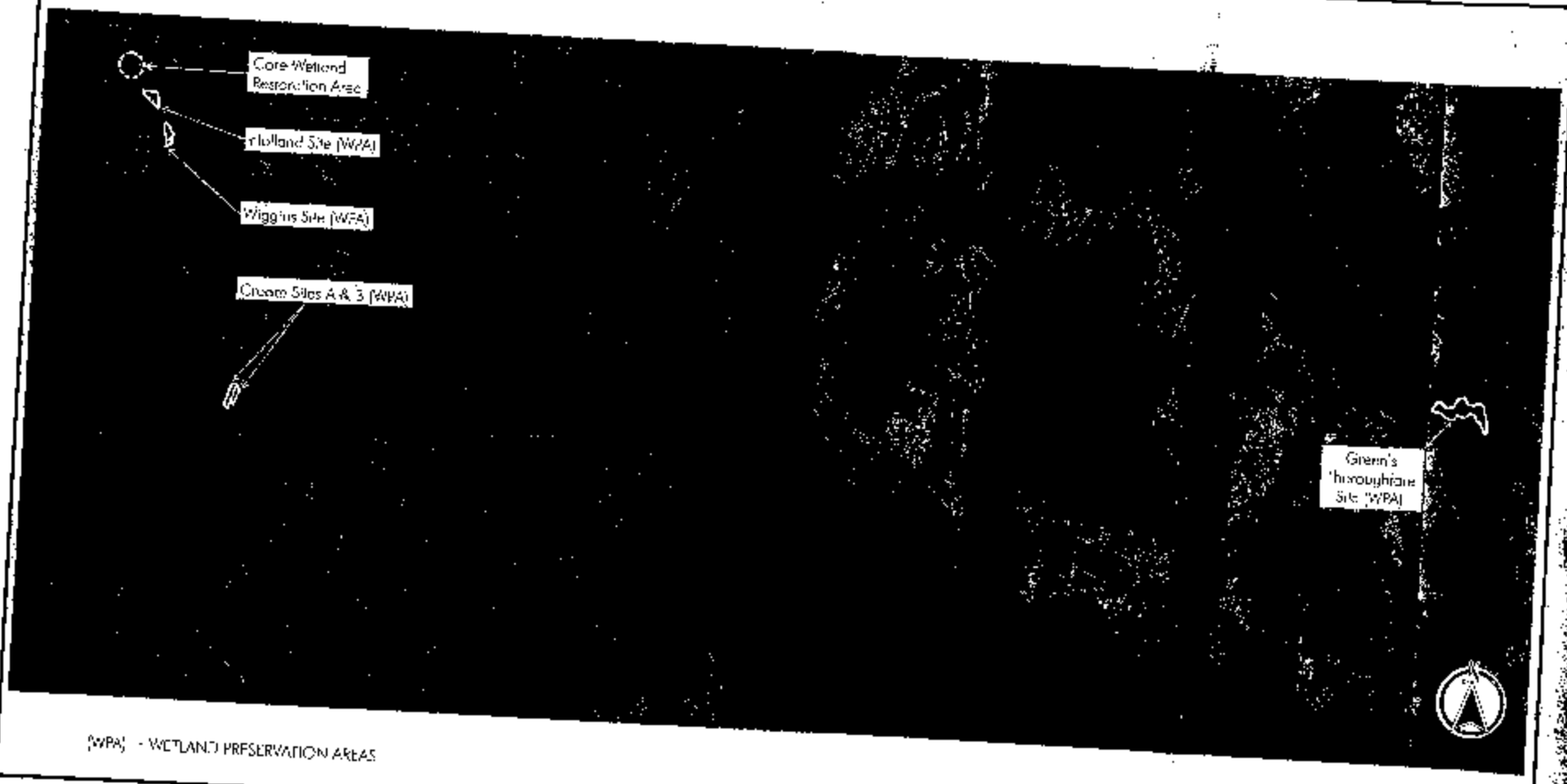
Reference Ecosystems:
Two relict communities were identified in southern reaches of the Core Wetland Restoration Area site for reference purposes. These areas continue to characterize steady-state forest conditions and provide amble opportunity upon which to base reference conditions. In addition, two of the Regional Wetland Preservation Area sites (Greens Thoroughfare and Croom properties) support relatively undisturbed riverine communities similar to those targeted for the Core Wetland Restoration Area; these sites have also been utilized to establish reference standards.

Geographic Service Area:
The Geographical Service Area (GSA) for this Bank includes the Neuse River Basin Hydrologic Unit 03020202 in North Carolina (see attached Figure Appendix D). Use of the Bank to compensate for impacts beyond the geographic service area may be considered by the Corps or the permitting agency on a case-by-case basis.

Anticipated Customers:
The North Carolina Department of Transportation has agreed to purchase mitigation credits generated by the Bank.

Final Disposition of the Bank:

Upon signing of the MBI, the Sponsor will grant Conservation Easements for all Bank Property (including Regional Wetland Preservation Areas) to the North Carolina Coastal Land Trust (NCCLT), in a form acceptable to the MBRT, sufficient to protect the Bank Property in perpetuity, or shall fund the acquisition of such an easement or fee simple ownership of Bank Property by NCCLT. The Conservation Easements will be perpetual, preserve all natural areas, and prohibit all use of the Bank Property inconsistent with its use as a mitigation property, including any activity that would materially alter the biological integrity or functional and educational value of wetlands within the Bank Property, consistent with the Mitigation Plan. The Sponsor will provide a trust fund of $35,000.00 to NCCLT for long-term maintenance, management, and remedial actions within the Bank, after the minimum, five-year monitoring period.



(WPA) - WETLAND PRESERVATION AREAS

EcoScience Corporation

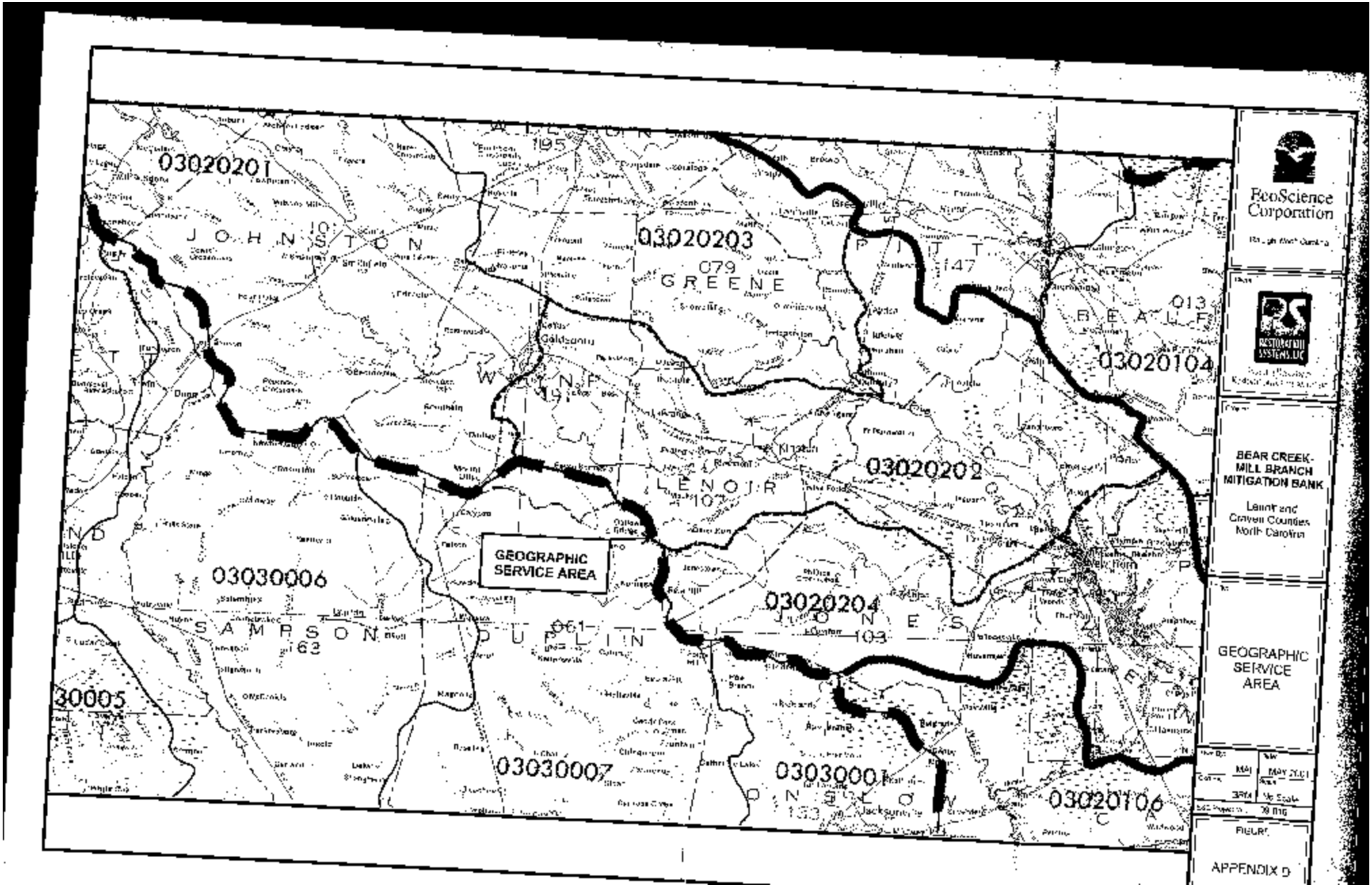
Bear Creek-Mill Branch Mitigation Bank

Wetland Preservation Areas and Core Wetland Restoration Area

Lenoir and Craven Counties, North Carolina

Figure

Scale: 1" = 2.5 km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GEOGRAPHIC SERVICE AREA
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APPENDIX D